

REMARKS

Applicant acknowledges the receipt of the Office Action dated 19 December 2005 in which the Examiner:

- 1) rejected claims 1-5, 7-22, 24-27, and 29-40 under 35 U.S.C. 102(b) as anticipated by *Tanizaki et al.* (U.S. Pat. No. 6,785,492);
- 2) rejected claims 6 and 23 under 35 U.S.C. 103(a) as obvious over the combination of *Tanizaki et al.* and *Merrifield et al.* (U.S. Pat. No. 6,246,841); and
- 3) rejected claim 28 under 35 U.S.C. 103(a) as obvious over the combination of *Tanizaki et al.* and *Morita et al.* (U.S. Pat. No. 5,262,824).

Applicants respectfully traverse the rejection of all pending claims as none of the prior art references teaches or suggests all the limitations recited in independent claims 1, 12, 16, 30 and 34. From a fundamental standpoint, Applicant's claims are directed to the motion of one or more rotational couplings that transmit rotary forces to a roller. These couplings are moved by a retraction plate. For each independent claim, the prior art does not teach or suggest moving the retraction plate in the direction recited in that claim.

I. Claims 1-11

Claim 1 recites "a retraction plate movable *in a substantially axial direction relative to said rollers* between engaged and retracted positions." None of the prior art references relied upon by the Examiner teaches or suggests this limitation. The examiner states that the *Tanizaki* reference discloses a retraction plate (17) movable in a substantially axial direction relative to photoconductor (8a-d) and transfer rollers (18a-d). In fact the *Tanizaki* reference discloses an outer door 17 that pivots about a lower hinge between open and closed positions. The transfer

rollers 18a-d are coupled to the door 17 and are brought into contact with the photoconductor drums 8a-d, which are removably inserted into the main body of the printer.

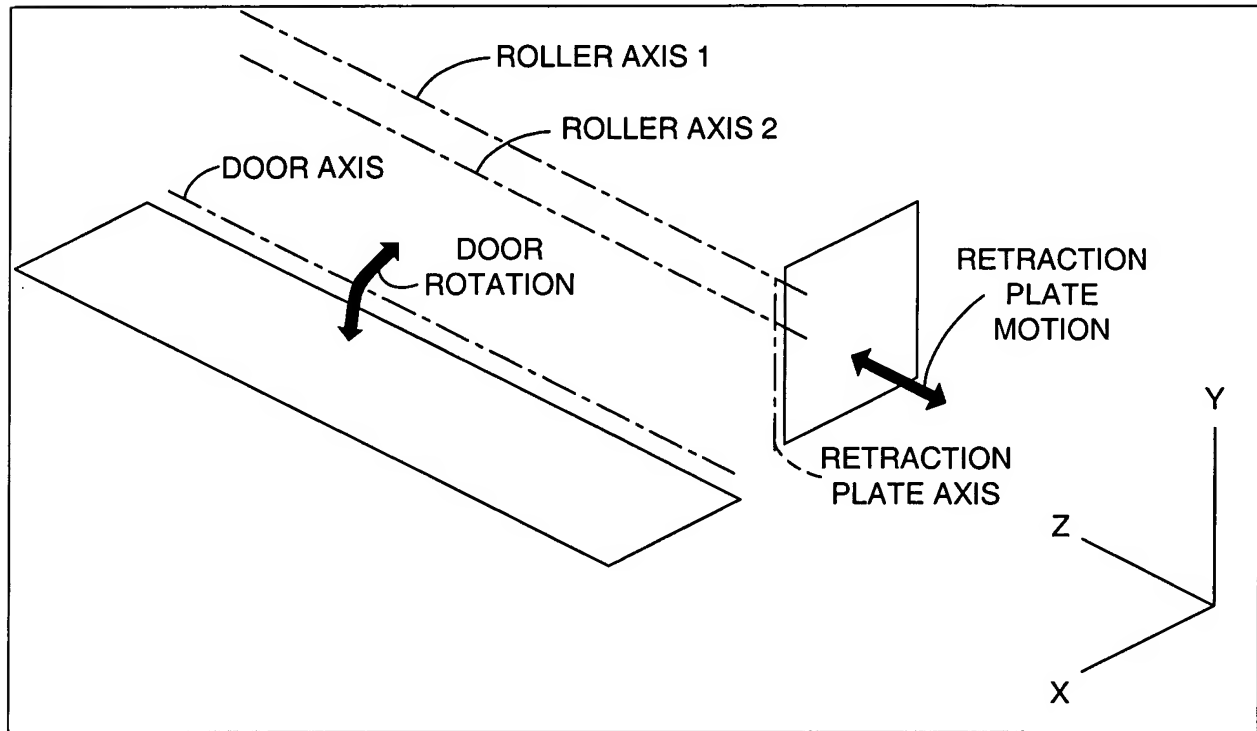


Figure 1

The door 17 disclosed in *Tanizaki* does not move in a substantially axial direction relative to the photoconductor drums 8a-d and the transfer rollers 18a-d. Figure 1 above is provided to illustrate this point and is referenced in the discussion below. The door 17 in *Tanizaki* pivots about the axis labeled DOOR AXIS. The DOOR AXIS is substantially parallel to the axes of rollers in the printer (identified as ROLLER AXIS 1 and ROLLER AXIS 2) such as the photoconductor drums 8a-d. Each of these axes is substantially aligned with the Z axis in the coordinate system provided in Figure 1. The door 17 moves in an arcuate direction about the DOOR AXIS as indicated by the arrows labeled DOOR ROTATION. That is, the door 17

does not move in the axial direction along the Z-axis. This is in contrast with the recited limitation whereby the retraction plate and couplings move in an axial direction of the rollers. The substantially axial direction relative to the roller axes is exemplified in Figure 1 by the arrows labeled RETRACTION PLATE MOTION. Note that this motion may include lateral motion as recited in dependent claim 11 or pivoting motion about a RETRACTION PLATE AXIS as recited in dependent claims 9 and 10.

In addition, *Tanizaki* does not disclose “rotational couplings moved by said retraction plate, each said rotational coupling operative to transmit a rotary force to one of said rollers.” *Tanizaki* discloses a photoconductor (34) drive mechanism shown in Figures 6A and 6B in the form of a friction drive belt 45 rotated by a drive roller 44 and idler gears 46a-d. Aside from describing the structure and position of the belt 45, drive roller 44, and idler gears 46a-d, *Tanizaki* is silent on the use of a movable retraction plate or other device to engage and apply rotational forces to the photoconductors 34.

The examiner also suggests the disclosure at Col. 10, lines 41-63 and Col. 12, lines 1-37 of the *Tanizaki* reference provides anticipating language. However, the text in these portions of the *Tanizaki* patent discusses the means by which the various cartridges (developer, photoconductor, and transfer) are secured within the printer body. This text does not teach or suggest the use of a retraction plate to move rotational couplings that transmit rotary forces to rollers. Accordingly, *Tanizaki* does not disclose all of the elements recited in independent claim 1. Therefore, claim 1 and claims 2-11 depending therefrom, define patentable subject matter over the prior art of record.

II. Claims 12-15

Claim 12 recites a pivoting retraction plate having a pivoting axis, a plurality of rotational couplings moved by the retraction plate, and “the pivoting axis oriented substantially orthogonal

to the plurality of rollers.” None of the prior art references relied upon by the Examiner teaches or suggests this combination of limitations. As shown in Figure 1 above, the RETRACTION PLATE AXIS is substantially orthogonal to ROLLER AXIS 1 and ROLLER AXIS 2. In the *Tanizaki* patent, the DOOR AXIS (see Figure 1 above as well) is substantially parallel to ROLLER AXIS 1 and ROLLER AXIS 2. Therefore, independent claim 12 and claims 13-15 depending therefrom, are patentable over the prior art of record.

III. Claims 16-29

Claim 16 relates generally to the relative motion between a retraction plate, a plurality of rotational couplings moved by the retraction plate, and an articulating member movable along the retraction plate. The examiner rejects claim 16 merely by reference to the rejection of claims 1 and 9-11. However, claims 1 and 9-11 do not include the articulating member element. The examiner has not shown, and Applicants cannot determine, how *Tanizaki* discloses an articulating member. Therefore, the examiner has failed to establish a prima facie 102(b) rejection showing how the *Tanizaki* reference anticipates each and every element of claim 16.

Furthermore, *Tanizaki* does not disclose that the movement of the articulating member in a first lateral direction is operative to translate the retraction plate in a second lateral direction generally orthogonal to the first lateral direction and generally parallel to an axis through one of the plurality of rollers. This limitation from claim 16 establishes a causal relationship between the articulating member and the retraction plate. This limitation further establishes the direction of the retraction plate motion as exemplified in Figure 1 by the arrows labeled RETRACTION PLATE MOTION. Since these limitations recited in claim 16 are not disclosed in the prior art, independent claim 16 and claims 17-29 depending therefrom, are patentable over the prior art of record.

The examiner appears to suggest, in rejecting dependent claim 18, that the photoconductor cartridge 8 is an articulating member. However, the photoconductor cartridge 8 is independently inserted into the printer body before the door 17 is closed. Thus, the act of inserting the photoconductor cartridge 8 is NOT operative to translate the door 17 in a direction that is generally parallel to an axis through one of the plurality of photoconductor rollers. Furthermore, the photoconductor cartridges 8 are not configured to move along the door 17 are required by claim 16. Thus, the fact that the photoconductor cartridge 8 in *Tanizaki* includes a pin 29 does not render claim 18 unpatentable since *Tanizaki* does not disclose all the elements recited in parent claim 16.

IV. Claims 30-33

Independent claim 30 is a method claim reciting a step of, “moving said retraction plate *in the axial direction of said coupling* such that said coupling moves in an axial direction towards said cartridge.” Again, *Tanizaki* does not disclose the act of moving a retraction plate in an axial direction. The components disclosed in *Tanizaki* move in directions substantially perpendicular to the claimed axial direction. Accordingly, claim 30 and claims 31-33 depending therefrom are patentable over the prior art of record.

V. Claims 34-40

Independent claim 34 recites groups of first and second cartridges. The first cartridges include a developer member while the second cartridges include a photoconductive member. *Tanizaki* discloses this general configuration. However, *Tanizaki* does not disclose a retraction plate that moves two sets of couplers into engagement with the first and second cartridges, respectively. Further, the door 17 in *Tanizaki* is not operative to move the sets of couplers in an

axial direction of the couplers. Accordingly, claim 34 and claims 35-40 depending therefrom are patentable over the prior art of record.

CONCLUSION

Applicant respectfully requests consideration of the above remarks and amendments. If the Examiner feels a telephone conversation is necessary for discussing the issues, he is invited to call the number indicated below. Thank you for your time and examination in this matter.

Respectfully submitted,

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